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Proposed Residential Development, Blackglen Road, Sandyford, Co. Dublin Mobility Management Plan

ENGINEERING A SUSTAINABLE FUTURE

Proposed Residential Development, Blackglen Road, Sandyford, Co. Dublin Mobility Management Plan (MMP)

Document Control Sheet

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5.7

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1 Introduction

ORS has been appointed by Hayes Higgins Partnership to prepare a Mobility Management Plan (MMP) as part of the planning application for a proposed development comprising of 129No. residential housing units on an existing greenfield site at Blackglen Rd, Sandyford, Co. Dublin. This document forms part of the planning application and should be read in conjunction with all drawings, reports, specifications, and particulars associated with the planning application.

1.1 Site Location

The proposed residential development site is located to the south of the M50 and to the north of Blackglen Road, approximately 300m west of the Lamb's Cross in Sandyford, Co. Dublin. The site is surrounded by urban developments of new and existing housing estates; to the north it is bounded by Fitzsimons Woods Proposed Natural Heritage Area, with the National Sports and Science Centre on the western boundary and an area of land known as Gorse Hill on the eastern boundary. There are a number of stand-alone dwellings along the southern boundary of the site, all with access to the Blackglen Road. The site comprises of rough pasture and dense scrub vegetation. Access to the development will be provided via the existing entrance to the site off Blackglen Road.

See Figure 1.1 below for the site location and environs.

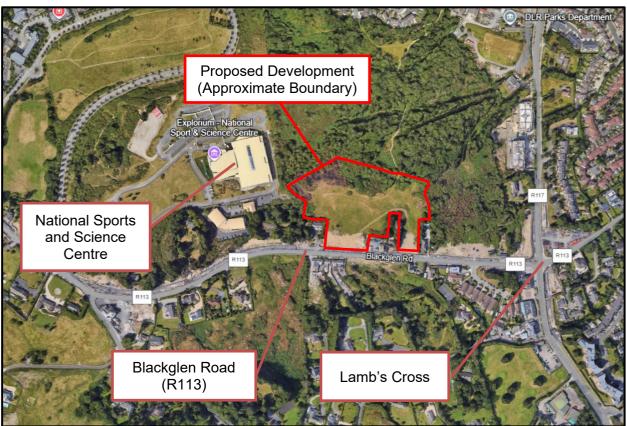


Figure 1.1: Site Location and Environs (Source: Map @Google Earth)

The site lies in urban location, and as such, is serviced by a variety of public transport and active travel options are viable.

1.2 Proposed Development

The proposal put forward by Hayes Higgins Partnership is to construct 129No. houses and apartments consisting of:

- 24No. Affordable units,
- 32No. Cost Rental units,
- 73No. Social units including 1No. High support unit.

The proposal includes all necessary infrastructure such as landscaping, boundary treatments, pedestrian links, public lighting and service connections. Ancillary site development works will also be undertaken, facilitating pedestrian, cycle and vehicular access/egress with Blackglen Road.

The proposed layout includes 138No. car parking spaces and 168No. bicycle spaces.

Figure 1.2 below shows the site layout.



Figure 1.2: Site Plan (Source: JFOC Architects)

1.3 Site Access

The site will have 1No. combined vehicular and pedestrian access point and 2No. pedestrian only access points from Blackglen Road, as highlighted by yellow and green circles in **Figure 1.3**, respectively.



Figure 1.3: Vehicular and Pedestrian Access Point from Blackglen Road Circled In Orange. Pedestrian Only Circled In Green (Source: JFOC Architects)

1.4 Pedestrian and Cyclist Infrastructure

The development includes provision for high quality pedestrian infrastructure in the form of footpaths, pedestrian crossings and dropped kerbs. With the exception of the shared cycle/ vehicle access point onto the Blackglen Road, which will give access to existing cyclist infrastructure along the public road, the development does not include provision for dedicated cycle lanes. Cyclists are to follow the internal road layout.

The Standards for Cycle Parking and Associated Cycling Facilities for New Developments was consulted in order to obtain the quantity of bicycle parking spaces the proposed residential development shall provide.

Sheltered bicycle parking facilities are provided for at all apartment blocks with additional short-term visitor parking spaces provided for also. As the development will have 129No. residential units, the total of bicycle parking spaces should be minimum 129No. for residents and 25No. for visitors, 154No. in total. The site is proposed to provide 168No. parking spaces, including 54No. short-stay spaces, with two locations shown in **Figure 1.4** overleaf.



Figure 1.4: Short-Term Visitor Parking Spaces Locations Circled In Green (Source: JFOC Architects)

1.5 Vehicle Parking

Chapter 12 of the Dún Laoghaire-Rathdown County Development Plan 2022 – 2028 was consulted to obtain the car parking standards for the proposed housing development. The document states in Table 12.5 the car parking spaces required for new developments and apartments located in Zone 3 – Remainder of the County (non-rural) areas. It is stated that 'Within parking Zone 3 maximum standards shall apply to uses other than residential where the parking standard shall apply' and that 'In some instances, in Zone 3 reduced provision may be acceptable.'

The proposed residential development will provide a total of 129No. dwellings and aims to have 138No. parking spaces (1No. per dwelling and 9No. visitor spaces). The 138No. parking spaces are in accordance with the requirements set under the development plan.

The reduction in car park availability is also in accordance with the publication 'The Sustainable Urban Housing: Design Standards for new Apartments' where the guideline for intermediate urban locations is 'to reduce the overall car parking standard and apply an appropriate maximum car parking standard.'

The Development Plan determined that for residential developments, 4% of the car parking provision shall be suitable for disabled persons. The proposal should include minimum 7No. disabled parking bays, which corresponds to 4%, to be in accordance with the guidelines. It is proposed to provide 8No. disabled parking bays.

The development plan also states that new residential developments shall provide EV parking spaces: a minimum of 1No. per 5No. spaces. For 138No. proposed parking spaces, 28No. will be EV parking spaces.

2 Mobility Management Plan

2.1 What is a Mobility Management Plan

A Mobility Management Plan (MMP) aims to provide a package of measures that can be implemented by any given development to motivate users to consider sustainable transportation. MMPs are a transport management mechanism that seek to provide for transportation needs and are particularly important in urban settlements.

A successful Mobility Management Plan will introduce a higher-than-normal proportion of users into more sustainable forms of transport thus reducing environmental, economic, and social impacts.

Mobility Management Plans work best when investment by the relevant authorities presents a choice for users to alter their preferred modes of transport. A list of measures generally includes the attraction of using public transport, cycling, walking, car-sharing, or a combination of these as alternatives to move away from standalone journeys to and from the premises by private vehicles.

The first stage of the plan is to outline the parameters for the development, with the information available at this stage. This information includes the following items:

- Exploration of opportunities to reduce/eliminate car usage;
- Viability of public transport to and from the premises;
- Suggest incentives to encourage sustainable transport;
- Outline the existing level of public transport in the vicinity of the development and the likely future improvements to the network;
- Describe the facilities available for pedestrians, ease of accessibility, cycle facilities; and
- Set out the anticipated targets of modal split for future years.

The second stage of a Mobility Management Plan should involve the following items, to be undertaken by the facility's Mobility Management Group:

- Consultation with the Local Authority to agree on measures to be incorporated on site and to discuss any initiatives by the applicant to promote sustainable transport measures;
- Consultation with residents and management;
- Establishing a mobility management plan coordinator;
- Conduct surveys to establish the travel trends once the development is concluded and operational;
- Implementation of measures outlined in the Mobility Management Plan; and
- Ongoing review of the Mobility Management Plan.

2.2 Methodology and Policy

In preparation for this Mobility Management Plan, reference was made to the following documents:

- Dún Laoghaire-Rathdown County Development Plan 2022-2028;
- Greater Dublin Area Transport Strategy 2022-2042;
- Greater Dublin Area Transport 2016-2035;
- National Sustainable Mobility Policy;
- National Sustainable Mobility Policy Action Plan 2022-2025;
- Smarter Travel A Sustainable Transport Future;
- Project Ireland 2040 National Planning Framework;
- Get Ireland Active National Physical Activity Plan for Ireland;
- Carpooling Guidelines The Smarter Travel Guide to Setting Carpooling Scheme; and
- The National Cycle Policy Framework 2010.

2.2.1.1 Dún Laoghaire-Rathdown County Development Plan 2022–2028

The Dún Laoghaire-Rathdown County Development Plan 2022–2028 came into effect on the 21st of April 2022. It outlines the policies and objectives for the growth and development of the county for the forthcoming period.

The Dún Laoghaire-Rathdown County Development Plan aligns with national policies by promoting sustainable transportation and reduced car usage. While specific parking standards are detailed within the plan, it generally supports the reduction of parking spaces in developments located in areas with robust public transport options. This strategy is designed to encourage the use of alternative modes of transport, such as walking, cycling, and public transit.

Chapter 5 of this document focuses solely on Transport and Mobility, with a focus on a sustainable, integrated and low-carbon transport system for the county. Below are some of the most relevant policies included in the plan.

Section 5.5 "Promoting Modal Change" focuses solely on the objectives and strategies to promote sustainable transportation as well as proposed infrastructure to be implemented in the lifetime of the plan.

Below are the relevant policies and objectives from the Dún Laoghaire-Rathdown County Development Plan which relate to the proposed development.

Policy Objectives:

POT4 – Sustainable Travel and Transport: ... is centred on promoting the ten-minute neighbourhood and compact climate resilient communities where people have the options to use public transport and the softer modes for everyday trips.

POT5 – Public Transport Improvements: to expand attractive public transport alternatives to car transport... by optimising existing or proposed transport corridors, interchanges, developing new park and rides, taxi ranks and cycling network facilities at appropriate locations.

It is a Policy Objective to support the DART+ Programme which will provide a higher frequency, integrated rail connection into the city with enhanced interchange with other modes.

POT6 – Quality Bus Network/Bus Connects: to co-operate with the NTA and other relevant

agencies to facilitate the implementation of the bus network measures... and to extend the bus network to other areas where appropriate subject to design, environmental assessment, public consultation, approval, finance and resources.

POT7 – Public Transport Interchanges: to facilitate the provision of quality public transport interchanges at strategic rail, Luas stations and Core Bus Corridors within the County in accordance with national and regional guidelines in order to facilitate focussed access to multiple public transport modes and to maximize the movement of people via sustainable modes.

Section 5.6 – "Promoting Active Travel: Cycling and Walking"

POT11 – Walking and Cycling: to secure the development of a high quality, fully connected and inclusive walking and cycling network across the County and the integration of walking, cycling and physical activity with placemaking including public realm permeability improvements.

POT12 – Footways and Pedestrian Routes: to maintain and expand the footway and pedestrian route network to provide for accessible, safe pedestrian routes within the County in accordance with best accessibility practice.

POT13 – County Cycle Network: to secure improvements to the County Cycle Network in accordance with the Dún Laoghaire-Rathdown Cycle Network Review whilst supporting the NTA on the development and implementation of the Greater Dublin Area Cycle Network Plan 2013 and subsequent revisions, subject to environmental assessment and route feasibility.

POT15 – Bike Rental Schemes: to support the provision of bike rental (pedal, e-bike, and other powered personal vehicles) across the County.

Section 5.7 – "Demand Management and Travel Planning"

POT16 – Travel Demand Management: to implement Travel Demand Management measures aimed at reducing the demand for travel and increasing the efficiency of the transport network with due consideration given to the effect of parking controls on nearby residential roads.

POT17 – Travel Plans: to require the submission of Travel Plans for developments that generate significant trip demand. Travel Plans should seek to reduce reliance on car based travel and encourage more sustainable modes of transport over the lifetime of a development.

POT18 – Car Sharing Schemes: to support the set up and operation of car sharing schemes to facilitate an overall reduction in car journeys and car parking requirements.

POT19 – Carparking Standards: to manage carparking as part of the overall strategic transport needs of the County in accordance with the parking standards.

POT21 – Park and Ride: to facilitate the provision of Park and Ride facilities, both short term and long term and to provide suitable electric charging structures and adequate cycle parking, in appropriate locations along strategic transport corridors.

POT22 - Taxi/ Minibus/ Hackney Transport: to facilitate the provision of taxi/ minibus/

hackney transport as a feeder service to major public transport corridors and to encourage the provision of taxi ranks at DART Stations, Luas stops, key bus stations and at other appropriate locations.

Section 5.8 - Road and Street Network

POT23 – Roads and Streets: to secure improvements to the County road network – including improved pedestrian and cycle facilities.

POT24 – Motorway and National Routes: to promote, facilitate and cooperate with relevant transport bodies, authorities and agencies to secure improvements to the County's Motorway and National road network to provide, protect and maintain for the safe and efficient movement of people and goods both within and through Dún Laoghaire-Rathdown.

POT28 – Road Safety: to implement a Council Road Safety Plan in line with the emerging Government Road Safety Strategy 2021 to 2030 in conjunction with relevant stakeholders and agencies.

POT30 – Street Lighting: to provide and maintain street lighting on the public road/footway/cycleways throughout the County in accordance with commonly accepted best practice, the Council's public lighting masterplan and the upgrade of sodium lights to LEDs.

POT31 – Accessibility: to support suitable access for people with disabilities, including improvements to transport, streets and public spaces. Accessibility primarily concerns people with reduced mobility, persons with disabilities, older persons and children.

POT32 – Personal Safety: to provide and support initiatives that will promote the personal safety of women and vulnerable users who are using all forms of public transport as well as motorists, cyclists and pedestrians. This would include all Luas, DART and bus stops, carparks, cycle parking facilities, laneways and other areas of common use. Initiatives could include well-lit surroundings, use of CCTV. There would also be an emphasis on placing entrances/exits to public transport and cycle facilities close to busy built-up areas.

POT33 – Directional/ Information/ Waymarking Signage: to provide directional signage for amenities, tourist attractions and local attractions and along cycle and pedestrian routes (waymarking) at appropriate locations throughout the County in accordance with planning and traffic regulations.

2.2.1.2 National Sustainable Mobility Policy

The National Sustainable Mobility Policy sets outs a framework for 2030 for active travel and public transport to support Ireland's overall requirement to achieve a 51% reduction in greenhouse gas emissions by 2030. Transport is responsible for around 18% of our greenhouse gas emissions, and it is vital that by 2030 we put in place the infrastructure, services and measures that enable and encourage more people to make the switch to more sustainable modes of travel.

The Policy sets out a strategic framework for sustainable mobility – active travel and public transport - in Ireland to 2030. The primary focus is to cater for daily travel needs in a more sustainable manner. It is intended to achieve this by making sustainable modes the most

attractive choice.

What is Sustainable Mobility?

Connecting people and places in a sustainable way by supporting:

- Safe, accessible, comfortable, and affordable journeys to and from home, work, education, shops and leisure.
- Travel by cleaner and greener public transport.
- A shift away from the private car to greater use of active travel and public transport.

The Policy aims to improve the Delivery of Sustainable Mobility by:

- Implementing the accompanying action plan to 2025 and a reviewed and updated action plan for 2026 to 2030.
- Establishing a Leadership Group to oversee and drive implementation of the Policy and delivery of the action plan and agree a programme of "pathfinder" projects at local level.
- Introducing a new annual National Household Travel Survey to measure progress against the Policy's targets.
- Convening a new National Sustainable Mobility Forum to provide a platform for collaborative engagement with national, regional, and local stakeholders.
- Increasing public engagement around the benefits of sustainable mobility and raising awareness of the availability of alternative options to the private car.
- Establishing a new National Transport Authority Advisory Council to engage with the NTA around the discharge of its functions.
- Developing a transport research network to support existing research programmes and draw on the sustainable mobility expertise available across academia and industry, both in Ireland and internationally.

2.2.2 Greater Dublin Area Transport Strategy 2022-2042

The Transport Strategy for the Greater Dublin Area 2022-2042 document (Transport Strategy) replaces the previous framework, titled *the Transport Strategy for the Greater Dublin Area 2016-2035*, which was approved by the then Minister for Transport, Tourism and Sport in 2016.

"That prior transport strategy set out to contribute to the economic, social and cultural progress of the Greater Dublin Area (GDA) by providing for the efficient, effective and sustainable movement of people and goods. In other words, it was about making the Dublin region a better place for people who live and work there, and for those who visit.

It did that by providing a framework for the planning and delivery of transport infrastructure and services in the GDA. It has also provided a transport planning policy around which other agencies involved in land use planning, environmental protection, and delivery of other infrastructure such as housing, water and power, could align their own investment priorities.

It has been an essential component, along with investment programmes in other sectors, for the development of the GDA which covers the counties of Dublin, Meath, Kildare and Wicklow. Major projects provided for in the strategy included:

- The on-going roll out of cycle tracks and greenways;
- DART+ Programme;
- Investment in bus priority and bus service improvements BusConnects Dublin."

2.2.3 Project Ireland 2040 – National Planning Framework

The Project Ireland 2040 – National Planning Framework is a high-level strategic plan for the future growth and development of the country in the next 20 years. The framework recognises the importance of interconnected public transport to make this transport mode more attractive to people.

The National Strategic Outcome 4 outlines that an "environmentally friendly sustainable transport system will enable growth and change, meet the significant increase in travel demand in urban congestion while also contributing to our national policy vision of low-carbon economy" and also "deliver a public transport network that will provide high-quality passenger interchange points, which facilitate convenient transfer between efficient and integrated public transport services".

2.2.4 Aims and Objectives

This Mobility Management Plan aims to highlight alternative modes of transport to and from the proposed site at Blackglen Road in an attempt to reduce or eliminate the need for private vehicle use and increase the attractiveness and practicality of other modes of transport. The measures suggested in this plan should ideally be part of a dynamic process, where they can be implemented by the site management, run on a pilot basis, reviewed by the Local Authority, and monitored over time to assess their performance.

Once the objectives of the travel plan are established, the benefits associated with alternative means of travel should become apparent. This plan aims to bring the following benefits to the development and surrounding area upon implementation:

- A net reduction in the level of traffic associated with the residential development and on the surrounding road network at peak times;
- Increased safety for pedestrians on the approaches to and from the development;
- Increased uptake of walking and cycling as a means of transportation which can promote fitness and boost neighbourhood relations;
- A reduction in the carbon footprint associated with the development due to the decreased number of private vehicles travelling to and from the development;
- A reduction in the parking demand associated with the development which in turn will increase safety for pedestrians in the vicinity of the site and for the site users;
- Increase the uptake of public transport links adjacent to the site;
- Improved relationships being forged by residents engaging in more active forms of transport; and
- Improvement of the general image of the residential development.

This MMP will introduce several policies to make the proposed development a safer, less congested and cleaner zone for all users. The policies will also aim to reduce the reliance on private vehicle use to and from the site and encourage use of path/cycleways and public transport use. These policies include but are not limited to the following:

- Encouraging residents to use public transport whenever possible;
- Encouraging residents to car-pool, reducing the overall number of single-occupant vehicle trips to the residential development;
- Encouraging residents to walk or cycle whenever possible;
- Introduction of walking clubs;
- Make residents aware of the health benefits of walking and cycling; and
- Introduction of on-site park management.

3 Transport Infrastructure

3.1 Overview

As stated previously, the principal aim of this Mobility Management Plan is to reduce the need for private cars by increasing the attraction and practicality of other modes of transport. The key factor to overcome when influencing a shift towards alternative modes of transport is the perception that no other realistic alternatives exist to using the car.

While the quality of transport infrastructure within the surrounding area is beyond the control of the management of this subject development, there are many techniques which can be deployed to encourage the switch to sustainable transport, as discussed in **Section 4**. A review of the transport infrastructure within the vicinity is an ideal starting point to inform this discussion.

This section provides a review of the existing and proposed transport infrastructure for the surrounding area and investigates whether the quality of each mode of transport is sufficient to stimulate occupant uptake.

3.2 Site Location and Access

As mentioned in **Section 1**, the site is located to the south of the M50 and to the north of R113 Blackglen Road, approximately 300m west of the Lamb's Cross in Sandyford, with access gained from the Blackglen Road which runs along the southern boundary of the site. **Figure 3.1** shows the environs of the proposed development.



Figure 3.1: Environs of Proposed Development (Source: Bing Maps)

The residential scheme will be accessed through a proposed stop-controlled junction for vehicles, combined with pedestrian access off Blackglen Road (R113) to the south of the site, the location of which is shown in **Figure 3.2**. Once completed, all pedestrian access points to the proposed development will lead directly onto the footpaths surrounding the housing units.

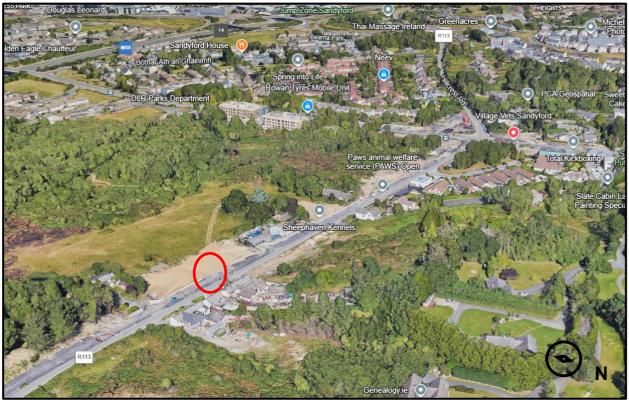


Figure 3.2: Proposed Development Entrance Location (Circled Red) (Source: Map @Google)

3.3 Existing Infrastructure

3.3.1 Pedestrian Infrastructure

Blackglen Road has recently undergone improvements, including the provision of footpaths on both sides of the road. The footpath consists of a smooth surface, offering good pedestrian accessibility. The proposed access point will be well serviced by existing pedestrian footpaths extending all the way along Blackglen Road and to the east towards the Lamb's Cross junction. The footpaths surrounding the site are ca. 2m wide, as can be seen in **Figure 3.3** overleaf.

Street lighting is present along the route, enhancing pedestrian safety at night. However, pedestrian crossings appear limited along the road, near the site access, potentially requiring further enhancement to ensure safe access to bus stops and local amenities.

However, signalised pedestrian crossings are located at the Lamb's Cross junction allowing pedestrians to cross and navigate safely along the R113 or R117 Enniskerry Road (see **Figure 3.3**).



Figure 3.3: Signalised Pedestrian Crossings at Lamb's Cross Junction, in the Vicinity of the Site (Source: Google Street View)

All roads in the vicinity of the site are pedestrianised with adequate footpath infrastructure meaning travel by foot to and from the proposed site is feasible. The majority of the junctions in the area provide pedestrian crossing facilities, with dropped kerbs and tactile paving.

There are several amenities, services and residential zones in the local area which may be a source of increased pedestrian traffic around the site. The site lies in the vicinity of a variety of convenience stores, pharmacies, restaurants/takeaways, and other retail units. The presence of a variety of services in the locality means that, at present, walking is a viable option for travel to and from the site.

Figure 3.4 overleaf shows the catchment area for a 20-minute walk from the site which would allow access to local amenities in alignment with goals outlined in Section 5.6 of the County Development Plan **Promoting Active Travel - Cycling and Walking**. The maps are modelled based on walking distances using existing infrastructure.

As can be observed from the figure overleaf, the 20-minute walking catchment from Blackglen Road extends across Sandyford, Ballinteer, and Stepaside, covering key residential and commercial areas. To the north, it reaches Sandyford Business District, providing access to employment hubs and the Sandyford LUAS stop on the Green Line. To the west, it extends toward Ballinteer, with connections to local amenities and residential neighbourhoods. The catchment also stretches southward toward Stepaside and the surrounding suburban developments, encompassing parts of Woodside and Ticknock. Although Dundrum Town Centre is slightly beyond the walking range, it remains accessible via nearby public transport options. The M50 motorway acts as a partial barrier, but pedestrian connections allow access to key destinations within the defined area.

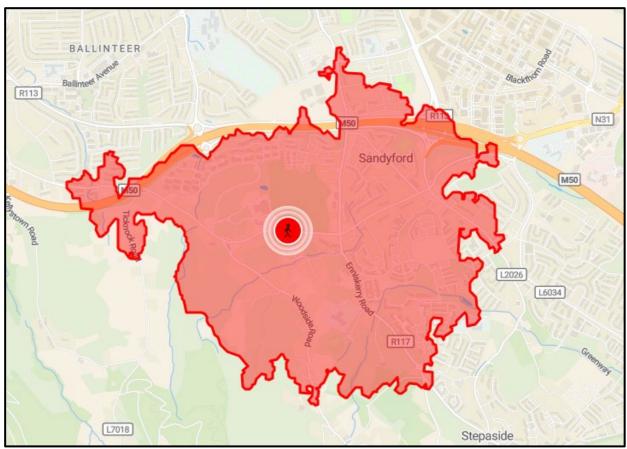


Figure 3.4: Catchment Area for 20-Minute Walking Journeys From Proposed Site (Source: TravelTime.com)

3.3.2 Cyclist Infrastructure

Figure 3.5 overleaf shows the current cycle infrastructure in the area according to the Open Street Map website. Blackglen Road has recently been upgraded to include dedicated cycling infrastructure, marked clearly with bicycle symbols and directional arrows on the pavement. These upgrades feature a segregated cycling track physically separated from the main carriageway by reduced height kerb, providing a degree of protection from vehicular traffic. The cycling tracks are of adequate width and are constructed with smooth asphalt surfacing, facilitating comfortable cycling conditions.

In the wider vicinity, the OpenStreetMap data indicates a network of local cycleways connecting residential areas around Sandyford and Kilcross, though these connections primarily follow residential roads and dedicated paths rather than the main R113 corridor. The topography of the area presents additional challenges for cycling, as Blackglen Road traverses elevated ground with noticeable gradients that may deter less experienced cyclists. Despite these limitations, the presence of some high-quality cycling infrastructure demonstrates Dun Laoghaire-Rathdown County Council's commitment to improving sustainable transport options in the area, providing potential opportunity for the proposed development to connect to these cycling facilities and enhance the existing network through appropriate design measures and contributions.

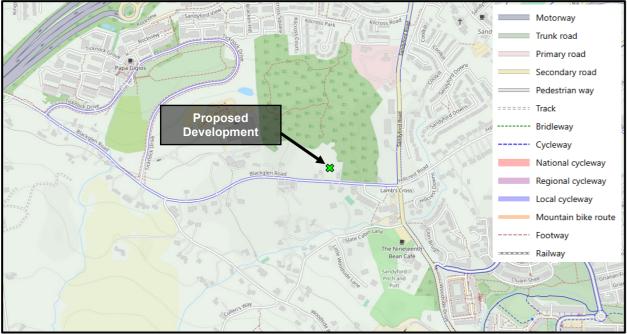


Figure 3.5: Existing Cycle Infrastructure in Sandyford. Approximate Site Location Marked With Green 'X' (Source: OpenStreetMap).

Figure 3.6 shows the existing cyclist infrastructure along Blackglen Road in the vicinity of the site and **Figure 3.7** overleaf shows the existing cycle track/lanes along Blackglen Road, on the approach to Lamb's Cross junction, approximately 300m east of the site frontage.



Figure 3.6: Existing Cycle Infrastructure Along Blackglen Road (Source: Google Street View)



Figure 3.7: Existing Cycle Infrastructure Along Blackglen Road Approaching the Lamb's Cross Junction (Source: Google Street View)

Figure 3.8 overleaf shows the catchment area for 20-minute cycle journeys from the site. As can be seen from this figure to the north, the catchment encompasses Dundrum, Churchtown, Windy Arbour, and reaches as far as Goatstown and Mount Merrion, extending toward Blackrock on the northeastern perimeter. The eastern boundary includes the affluent residential areas of Foxrock and Carrickmines, with the southeastern extent reaching Kilternan. The western limits of the catchment area incorporate Ballyboden, Whitechurch, and parts of Knocklyon and Scholarstown, while the southern boundary extends past the M50 road to include Stepaside and portions of the Dublin Mountains foothills.

Significantly, the catchment area includes several key destinations and amenities that would be accessible to residents of the proposed development within a reasonable 20-minute cycling journey. The Sandyford Business District, a major employment center, falls well within this zone. The M50 motorway corridor bisects the catchment area, with multiple crossing points available. Major retail destinations such as Dundrum Town Centre are also accessible within this timeframe.

The cycling catchment demonstrates good connectivity to educational institutions, recreational facilities, and employment centres throughout south Dublin. The extensive coverage indicates that cycling represents a viable transportation option for future residents of the development, particularly given the enhanced cycling infrastructure observed along portions of Blackglen Road and connecting routes.

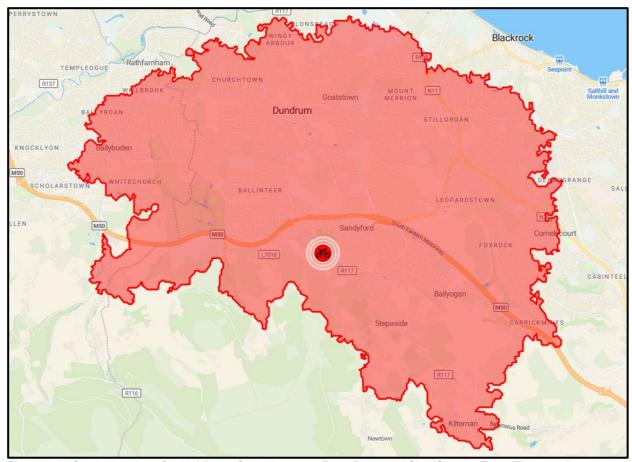


Figure 3.8: Catchment Area for 20-Minute Cycle Journeys From Proposed Site (Source: TravelTime.com)

3.3.3 Bus Services

Numerous bus stops are located within a 5-minute walk of the site and provide access to bus lines servicing Dublin and its surrounds. There are 2No. bus stops located adjacent to the site entrance. The 3494 and 3533 bus stops to the south of the site operate both Dublin Bus and Go-Ahead Ireland routes 44B and 114. The Dublin Bus 44B service operates only 5No. times a day from Monday to Friday in each direction and the Go-Ahead Ireland 114 route operates on an hourly basis during weekdays.

Figure 3.9 below displays and **Table 3.1** summarises the available bus routes at the nearest bus stops.



Figure 3.9: Bus Routes in the Vicinity of Site (Source: maptan, NTA)

Table 3.1 - Bus Services in Site Vicinity (Source: TFI.ie)					
Route Number	Operator	Distance from Stop	Route	Frequency	
44B	Dublin Bus	300m	Dundrum Luas Station - Glencullen	5 per day	
44	Dubiiii Bus	1.2km	DCU - Enniskerry	hourly	
114	GoAhead	300m	Ticknock - Blackrock Station via Sandyford Luas	hourly	

In addition to the nearest bus routes, interconnectivity with other bus routes can be availed of by utilising the existing bus network in the vicinity of the site.

3.3.4 Light Rail Services

The Dublin Luas light rail network provides the primary rail transport option for the proposed development. The site benefits from its proximity to the Green Line, which forms a north-south corridor through south Dublin connecting suburbs to the city centre.

Figure 3.10 below outlines the rail routes currently operating in the area.

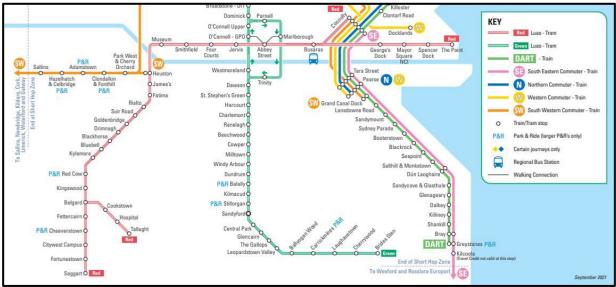


Figure 3.10: Rail Services in the Dublin Area (Source: transportforireland.ie)

The following Luas stations are accessible from the development site (see **Table 3.2**):

Table 3.2 – Luas Stations in Site Vicinity (Source: TFI.ie)			
Station	Approximate Distance	Walking Time	Cycling Time
Glencairn	2.0km	25 minutes	7 minutes
Central Park	2.5km	30-35 minutes	8 minutes

Glencairn Luas Stop represents the most accessible station for future residents, falling within recommended distance parameters for sustainable transport planning.

The Luas Green Line offers comprehensive connectivity to key destinations across Dublin:

Northbound Services:

- Dundrum (Shopping Centre)
- Milltown
- Ranelagh
- St. Stephen's Green (10km from site, 22-minute journey time from Sandyford)
- O'Connell Street (connection with Red Line)

- Phibsborough
- Broombridge (terminus, 35-minute journey from Sandyford)

Southbound Services:

- Leopardstown
- Carrickmines
- Cherrywood

Service Frequency:

Peak Hours: 4-8 minute headways
Off-Peak: 10-15 minute headways
First service: 05:30 (weekdays)
Last service: 00:30 (weekends).

3.3.5 Heavy Rail Services (DART)

While not as conveniently located as the Luas, the DART (Dublin Area Rapid Transit) network is accessible via intermodal connections. The DART service provides coastal connectivity from Howth/Malahide in the north to Greystones in the south, passing through Dublin city centre. Dun Laoghaire train station is located approximately 8.5km from the proposed site. This train station services 3No, routes as listed in **Table 3.3**.

Table 3.3 – Train Services in Site Vicinity (Source: TFI.ie)			
Direction	Weekday Services		
Dublin- Dundalk Commuter	2/3		
Dublin Connolly - Rosslare	6/6		
DART and Dublin Commuter	102/101		

3.3.6 Car Sharing

Car-share services such as GoCar, Yuko, and Enterprise Car Club operate in several locations around Dún Laoghaire allowing customers to rent vehicles on a daily or hourly basis. **Figure 3.11** overleaf shows the availability of GoCar and **Figure 3.12** of Yuko vehicles within the vicinity of the site. Currently the nearest GoCar location (GoBase) is located approximately 1.8km east at APCOA parking and can be accessed within a 25-minute walk. The nearest Yuko location is in 2.2km east, at Woodward Square, and can be accessed within a 29-minute walk.

To avail of these services, users are typically prompted to register online or via app which then unlocks access to a fully insured vehicle with fuel and parking tickets included. This initiative significantly reduces the need for individuals to own a private vehicle.

Driveyou Limited in partnership with Dún Laoghaire-Rathdown County Council launched locations where a community car and van sharing service would integrate with the day-to-day needs of people in these areas. **Figure 3.13** shows the availability of Driveyou vehicles within

the vicinity of the site. The nearest location is on Centra Sandyford Hall, in 1.7km to the east and can be accessed within a 22-minute walk.

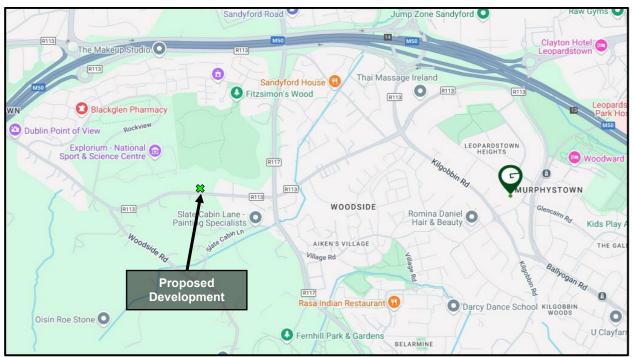


Figure 3.11: Gobase Locations Within Vicinity of the Proposed Development (Source: gocar.ie)

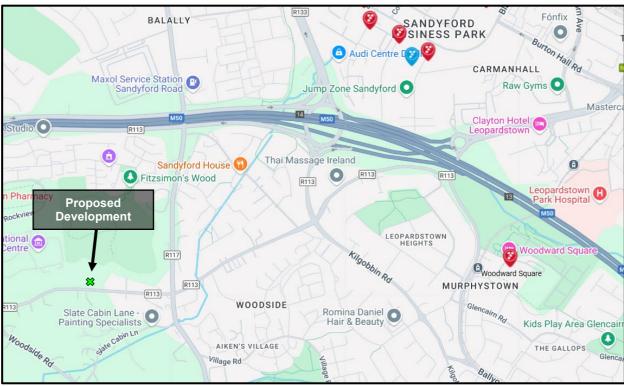


Figure 3.12: Yuko locations within vicinity of the proposed development (Source: yuko.ie)

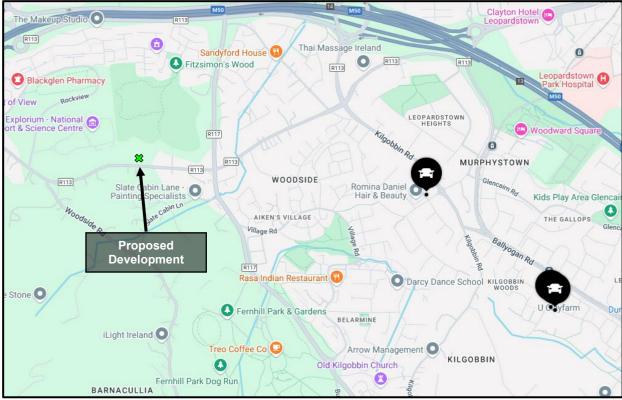


Figure 3.13: Driveyou Locations Within Vicinity of the Proposed Development (Source: driveyou.ie)

Individuals can also avail of online services such as Liftshare which allows users to coordinate journeys with other individuals that happen to be travelling in the same direction. While this service does not provide immediate access to a personal vehicle, it nevertheless reduces the requirement for a personal vehicle in certain circumstances.

3.3.7 Road Network

The proposed residential development will be accessed off Blackglen Road (R113), which forms part of the regional road network serving south Dublin. Blackglen Road functions as an important connector route linking the Sandyford area with residential districts to the south and west. The road has undergone recent improvements along certain sections, featuring a standard two-lane carriageway with additional turning lanes at key junctions.

The immediate section of Blackglen Road adjacent to the development site presents the following characteristics:

- 7.0m wide carriageway
- 50km/h speed limit
- Recently resurfaced asphalt with clear road markings
- Street lighting along both sides
- Varying width footpaths (1.5-2.0m)
- Cycling infrastructure as detailed in Section 3.3.2.

The M50 motorway represents the primary strategic route in the area, located approximately 1.4km east of the site. Junction 13 (Sandyford/Dundrum) provides the nearest access point, connecting the local road network to Ireland's primary orbital route around Dublin.

Figure 3.14 shows the road network in the vicinity of the site.

Several regional roads serve the area surrounding the development site:

- R113 (Blackglen Road) provides the direct site access and connects to Sandyford village;
- R117 (Enniskerry Road) provides north-south connectivity approximately 350m east of the site

Travel to Dublin City Centre from the site via private vehicle would take approximately 45 minutes depending on traffic, via R117, R825 and then R815.



Figure 3.14: View of Road Network in the Vicinity of the Site (Source: Map ©Google Earth)

3.4 Proposed Transport Infrastructure

3.4.1 Proposed Cycle Networks

'Smarter Travel – A New Transport Policy' proposes a series of actions that ensure alternatives to car use are more widely available. The aim of the National Sustainable Mobility Policy is to promote actions that support sustainable mobility. In line with these objectives, the Greater Dublin Area Transport Strategy 2022-2042 proposes several measures to improve the current cycling network and includes plans for improved infrastructure in the vicinity of the site. The 2022 Greater Dublin Area Cycle Network document from the NTA also features maps that outline the planned improvements for the Greater Dublin Area cycle network.

Figure 3.15 below outlines the proposed cycle network improvements proposed for the Dublin South Central area, which incorporates the area of the proposed site.

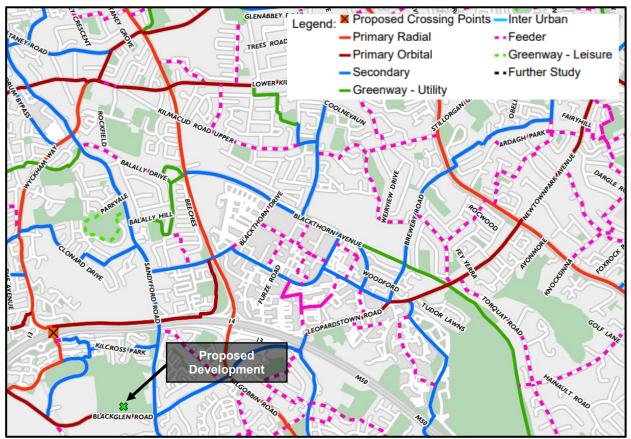


Figure 3.15: Proposed cycle network plan for Dún Laoghaire. Cropped (Source: Greater Dublin Area Transport Strategy 2022-2042)

It can be seen from this figure, Blackglen Road is a primary orbital cycle route for Sandyford. The proposed network also highlights the remaining roads at Lamb's Cross as secondary routes, connecting Sandyford to Dundrum and the city center.

Dun Laoghaire-Rathdown County Council has included several cycling infrastructure improvements in their current Development Plan and Active Travel program, i.e., the

implementation of a comprehensive cycling network throughout the Sandyford area as part of the Sandyford Urban Framework Plan, with dedicated connections to the Sandyford Business District and Luas stops.

3.4.2 Proposed Bus Services

Section 12.2 of the Transport Strategy includes considerations to improve the bus network for Dublin and its surrounds. In particular, it outlines proposed improvements for BusConnects Dublin which comprises the following elements:

- Core bus corridors (CBCs) providing approximately 230km of bus priority and approximately 200km of cycle routes
- A new Dublin area bus service network
- Next generation ticketing
- New bus livery
- New bus stops and shelters
- A low/zero emissions bus fleet
- New park & ride and interchanges
- A revised fare structure.

The BusConnects Network Redesign provides an increase in services, both spine routes (through the city centre) and orbital routes (not through the city centre) as well as improved frequencies to provide a greater number of services and connections to more places across the city. To facilitate these service enhancements, Transport for Ireland's BusConnects program includes several elements that will enhance public transport provision in the vicinity.

The main bus routes serving the County under the BusConnects Network Redesign include:

- Orbital Route S8: Proposed new orbital service connecting Sandyford to Dun Laoghaire centre and City West, with potential stops near the site.
- Local Route and other City Bound Routes Revisions: Enhanced frequency and coverage of local bus services in the Sandyford area, improving connections to the Luas Green Line.
- Bus Priority Measures: Planned implementation of bus priority measures along key corridors in the wider area to improve service reliability and journey times.

Figure 3.16 overleaf outlines the revised bus network map from 2024. Spines and branches are shown in red, Orbital routes in light blue, and Local Routes in purple. As can be seen from the map, the proposed site is located close to the BusConnects A Spine.

According to the Transport Strategy, there are also plans to improve the BusConnects Core and Orbital Bus Corridors, the maps of which are included in **Figure 3.17**.

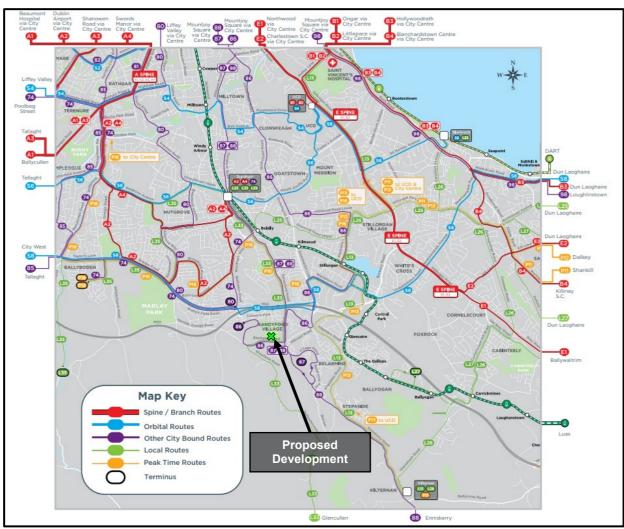


Figure 3.16: Proposed Bus Routes for the Dundrum Area – Revised Network 2024 (Source: busconnect.ie)

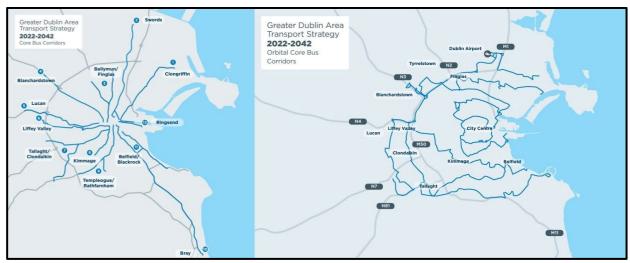


Figure 3.17: BusConnects Core Routes (left) and Orbital Routes (right) (Source: Greater Dublin Area Transport Strategy 2022-2042)

3.4.3 Proposed Rail Services

Light Rail - Luas and Metrolink

The Transport Strategy outlines proposals to upgrade the existing Luas light rail network, as well as proposals to establish the Metrolink service which would have a significantly higher potential capacity compared to the Luas. There are currently no proposed Luas lines that would run in closer proximity to the site. Despite this, improvements and expansions to the network would nevertheless lead to more options for travel for future users and better optimisation of the network as a whole.

Transport Infrastructure Ireland has outlined plans for capacity enhancements to the Luas Green Line:

Fleet Expansion: Introduction of longer tram sets to increase capacity on the Green Line.

Frequency Improvements: Planned reduction in headways during peak periods to accommodate growing demand.

Sandyford Interchange Enhancement: Proposed improvements to the interchange facilities at Sandyford Luas Stop, including additional bicycle parking and improved pedestrian access.

The proposed Metrolink line from Swords to Charlemont should lead to a significant improvement in public transport connectivity around Dublin, particularly due its planned connection to Dublin airport. Despite this, the proposed site location lies sufficient distance from the proposed line for a significant impact to be noticed.

Figure 3.18 outlines the planned expansions of the Luas network up to and after 2042 and includes the proposed Metrolink line from Swords to Charlemont.



Figure 3.18: Proposed Luas and Metrolink lines up to 2042 (left) and after 2042 (right) (Source: Greater Dublin Area Transport Strategy 2022-2042)

DART+ and Rail

Several upgrades to the existing rail networks are proposed.

Figure 3.19 outlines the proposed rail upgrades extending to 2042. Similar to the proposed Metrolink, the proposed site does not lie within the path of any future DART lines. Nevertheless, planned public transport improvements should lead to smoother flow of public transport in the Dublin Greater Area.



Figure 3.19: Proposed DART/Commuter Rail Lines up to 2042 (Source: Greater Dublin Area Transport Strategy 2022-2042)

3.4.4 Local Traffic Management Initiatives

Dun Laoghaire-Rathdown County Council has identified several traffic management initiatives in the area:

- Implementation of 30km/h zones in residential areas;
- Enhanced pedestrian crossing facilities at key desire lines;
- Junction reconfiguration to improve safety for vulnerable road users; and
- Smart traffic signal optimisation at key intersections.

4 Baseline Information

4.1 Travel Questionnaires

A comprehensive baseline survey of any given site is required to facilitate the Mobility Coordinator of the development to make informed decisions on mobility management and set realistic modal-split targets. This exercise typically relies on empirical data relating to the building occupants' travel routines, usually obtained by way of a travel questionnaire as detailed in **Appendix A**.

Given the fact that the status of this project currently lies in the planning phase, it is not possible to establish accurate, empirical travel patterns of occupants of the subject site. Taking this into consideration, this report utilises alternative methods to establish baseline trends and provide a statement of the broad objectives with respect to mobility management for the site. The plan sets out broad targets and objectives along with the mechanisms, including both hard and soft measures, which can be put in place to support the modal shift.

At this stage, the plan is intended to provide a preliminary overview and will be revised accordingly when more detailed information regarding the future residents becomes available. The formulation and implementation of a Mobility Management Plan is an iterative process; hence this plan is an evolving document and will be regularly updated based on experience gained from its implementation, operation, and the results of future surveys.

4.2 Transport Modal Split

A typical modal split analysis cannot be carried out due to the early stage of the development and the lack of viable data. An analysis of the 2022 Census was carried out and transport habit data for the Glencullen - Sandyford Electoral Area (**Figure 4.1** overleaf) was used to identify a baseline breakdown of current modes of transport in the area.

This can be used to provide an initial modal split target, but it is recommended that a travel survey is undertaken after the development has been concluded for a few months. This survey will outline a more comprehensive baseline to re-evaluate the modal split targets.

A typical modal split target would consist of 55% sustainable transport such as public transport, car-sharing or walking/cycling and 45% personal car use. It is difficult to set targets like these for the site, considering that the actual method of transport for the occupants is yet to be identified and as mentioned above, a survey after a few months of operation will allow a more comprehensive modal split target to be set.

Based on the data from the Sandyford Electoral Area, the use of private vehicles, including driver and passenger, is at 47%, which is very close to the national target set in the Smarter Travel document of 45%. The use of sustainable forms of transportation, such as walking, cycling and public transport, by residents of Glencullen - Sandyford is at 37% (please refer to **Figure 4.2** for details). 16% of respondents stated that they work mainly at or from home or didn't respond. This 16% of respondents can be excluded from the analysis of the proposed residential development, so the modal split between the use of private vehicles and sustainable

transport by population can be roughly estimated as 50/50.

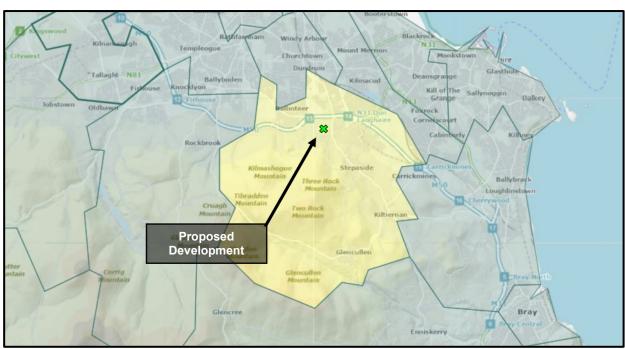


Figure 4.1: Glencullen - Sandyford Electoral Area (CSO)

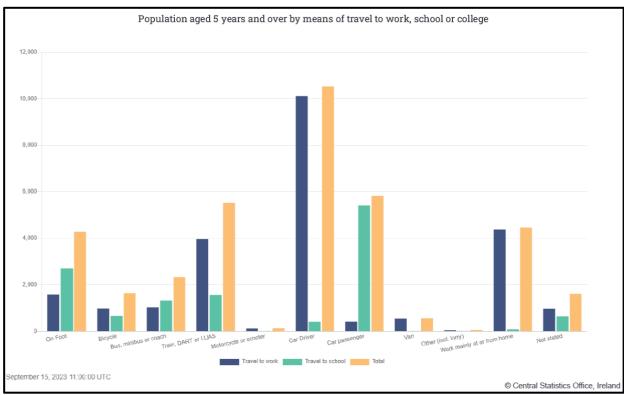


Figure 4.2: Population Aged 5 Years and Over By Means of Travel To Work, School or College for Glencullen - Sandyford Electoral Area as of 2022 (CSO)

5 Action Plan

5.1 Background

To ensure the successful implementation of the mobility management plan, it is important that management of the proposed development make residents aware of the local public transport, walking and cycling infrastructure and the benefits of reducing the traffic load on the surrounding road network, as well as highlight the accessibility of local amenities in the area.

The design and implementation of safe infrastructure is a key component to ensure sustainable transport options are attractive to residents. This action plan outlines several strategies to encourage the uptake of more sustainable methods of transport and reduce car journeys by residents of the proposed development, reducing the associated burden on both the surrounding development and the environment, such as:

- Appointment of a Mobility Management Plan Coordinator;
- Provision of a Welcome Travel Pack to new residents;
- Introduction of walking and cycling strategy;
- Promotion of the existing Bus and Rail transport routes available in the area;
- Promotion of car-share/ lift-share services;
- · Implementation of parking management; and
- Existing and any proposed transportation initiatives.

5.2 Walking

Walking is a wholly beneficial activity for people to undertake on a daily basis and features a very low barrier for entry. While not only beneficial for human health and the environment, walking can also boost the sense of community by increasing the odds of individuals interaction. Additionally, access to public transport routes within walking distance makes it a viable means of transport for residents for travel to and from work. Some of the main benefits to walking are as follows:

- Research has shown that people who walk to work are more aware of the green cross code and road safety issue
- The more people that walk rather than drive will result in fewer cars in the vicinity of the proposed development leading to a safer environment
- Studies have shown that people who walk to work are more alert than those who do not especially early in the morning
- Walking to work provides an excellent platform for friendships to be formed between people
- Walking reduces the development's carbon footprint and enhances sustainability
- Walking is an excellent activity to increase overall fitness and studies have shown that
 people that incorporate walking into their daily routines benefit from an increased feeling of
 well-being.

5.2.1 Walking Infrastructure

As outlined in the report there is ample existing walking infrastructure within the vicinity of the

proposed development in the form of footpaths, pedestrian crossings and dropped kerbs which accommodate walking.

5.2.2 Incentives to Encourage Walking

This mobility management plan proposes to introduce several incentives aimed at capturing the attention of residents and encourage the uptake of walking as a sustainable means of travel. Such measures include but are not limited to:

- Introduce walking clubs: These can encourage residents to support each other and lead to more physical activity.
- Organise a pedometer challenge among residents: systems like this encourage a friendly rivalry between participants and can lead to friendships being formed.

5.3 Cycling

Cycling is an excellent activity that improves overall fitness. It is one of the fastest ways for an individual to travel, aside from using public and private transport, and raises the level of road safety awareness and it is the third most popular activity in Ireland. Some of the main benefits of cycling are discussed below:

- Cycling will have monetary benefits / savings to those who cycle as opposed to using their private cars as fuel costs will be reduced;
- Cycling provides people with the platform to become independent and not reliant on traditional forms of transport to reach their destination;
- Cycling is enjoyable and is a fantastic recreational activity;
- Cycling is an excellent way to explore the local area and become more aware of the wider community;
- If more people cycle as opposed to driving, there will be less traffic congestion thus resulting in a safer route network;
- Cycling is an excellent way to make friends, particularly when cycling in groups; and
- Cycling is an excellent activity to do on a regular basis and improves overall fitness.

5.3.1 Cycling Infrastructure

The proposed development will incorporate 114No. long-term secure sheltered bicycle parking and 54No. visitor bicycle parking, in order to encourage site users to cycle to and from the proposed residential development. The development could include provision for a bicycle maintenance stand containing pumps, puncture repair equipment and wrenches etc. alongside the proposed bicycle parking areas. The proposed development could provide an opportunity to recharge electric bikes and scooters on the premises.

Blackglen Road contains existing cycle infrastructure which integrates into kerb-side cycle lanes further east, as outlined in **Section 3.3.2**.

Figure 3.8 indicates the catchment area reachable within a 20-minute cycle of the site. The cycling catchment demonstrates good connectivity to educational institutions, recreational facilities, and employment centres throughout south Dublin.

5.3.2 Incentives to Encourage Cycling

With the aim of encouraging cycling as a mode of transport, this mobility management plan proposes to introduce a number of challenges and incentives to capture the attention of residents. Such measures/ challenges include but are not limited to the following:

- Organise training days on the rules of the road and how they apply to cyclists;
- · Organise bike maintenance training talks;
- Encourage participation in local bicycle or triathlon clubs;
- Invite bike suppliers for a "try before you buy" demonstration to residents; and
- Consider organising a bicycle pool for residents where shared bikes are available.

5.3.3 Cycling Clubs

Cycling clubs are a great way of meeting new people while maintaining and improving your fitness. Most cycling clubs put together organised group rides weekly or monthly for cyclists of various skill levels. It is the perfect way to discover new routes, new riding buddies, improve your group-riding skills and connect with fellow cyclists in a social setting. You can also learn things from other cyclists like bike repair tips, workout ideas and other secrets to improve your cycling.

5.3.4 Incentivising Use of Public Transport

As outlined in **Sections 3.3.3** and **3.3.4**, Blackglen Road is already served by 2No. bus services, in the vicinity of the site, within a 3-minute walk. In order to encourage the use of public transport, this mobility management plan proposes the implementation of various measures to entice residents to continue to utilise public transport options. These include:

- Providing information on existing and additional bus services to residents;
- Implementing a 'buddy' system for residents travelling to/ from similar work/school locations;
- Publicise the availability of Real Time Information. Real Time Information shows when your bus is due to arrive at your bus stop so you can plan your journey more accurately; and
- Providing information at common areas for taxi services serving the local area.

The Luas green line can be accessed within a 25-minute walk or 7-minute cycling providing wider connectivity, while falling within recommended distance parameters for sustainable transport planning.

5.3.5 Car-Sharing

Car-sharing, also known as carpooling, system has been introduced all over the world over a variety of different organisations and facilities and has proven to be a successful measure in reducing vehicular traffic. Every day people travel to work, school, etc. and many people near each other make their own individual trips by private vehicle. The main benefit of introducing a carpooling system is that people can share their vehicles thereby reducing the overall number of vehicles to and from the residential development at peak times. By carpooling just once a week, studies have shown that commuters fuel costs can be reduced by up to 20%, and when done regularly, emissions can be reduced by 4% to 5%. Furthermore, the reduction of vehicular

traffic results in a net decrease in the demand for car parking spaces.

For carpooling schemes to be effective, it is essential that residents and the residential MMP coordinate ensure that the occupancy of a vehicle travelling from the development is maximised. This can be done in a number of ways; however, the most effective way of coordinating the process is to map where each resident works/ studies and link-up residents who work nearby to promote car-pooling when other more sustainable modes of transport are not viable.

The residential management company could also make carpooling software available to residents. This particular software can be used by residents' phones where their information is recorded, and potential matches are automatically generated based on work/school schedule and preferences. This method generally provides greater security, ensuring privacy for participants and enhanced matching facilities.

With regards to private vehicle use, and should the need arise, car-sharing services such as GoCar and Yuko are available in numerous locations in the vicinity of the site, as outlined in **Section 3.3.6** above.

5.3.6 Incentives to Encourage Car-Sharing

In order to encourage carpooling in the development, this mobility management plan proposes to introduce a number of incentives to entice residents to embrace the scheme, such as:

- Ensure the most convenient car parking spaces are reserved for residents who carpool;
- Make clear that drivers will not have to go out of their way to pick up a person who is not on their desired route;
- Promote the financial benefits of the scheme.; and
- Promote systems whereby those who are given a lift share in fuel costs.

5.4 Welcome Travel Pack

A Welcome Travel Pack includes all necessary information about travel choices to and from the development. The travel pack will aim to increase awareness of residents to the available transportation methods within the vicinity and aim to help change their current mode of transport into a more sustainable option, providing health and financial benefits of the change. The pack can include:

- A brief description of the Mobility Management Plan;
- Maps of walking and cycling infrastructure within vicinity;
- Timetables of public transport (Buses and Rail);
- Information on the health benefits of walking and cycling;
- Information about car-sharing as well as benefits, such as reduction in traffic congestion near the site, cost savings etc.;
- Information on transitioning to Electric Vehicles; and
- Information about taxi services in the area.

5.5 Car Parking Allocation

The proposed Blackglen Development will have 138No. car parking spaces located within throughout the site inclusive of 8No. accessible parking spaces.

Traditionally, a reduction in car park spaces is considered a good approach to discourage single-occupancy car trips. However, the current lack of high frequency bus services at the local bus stops means that the dependence on the car will be necessary for some residents.

The proposed transport infrastructure improvements represent significant enhancements to the accessibility and sustainable transport options serving the development site. The timing of these improvements aligns favorably with the proposed development timeline, potentially allowing residents to benefit from enhanced infrastructure from initial occupation.

It is recommended that the proposed parking space allocation remains in place and that this allocation can be refined in future iterations of the MMP when improved transport infrastructure is implemented. In the case where the transport modal splits change in the site, the car parking spaces required would be reduced, and more cycle storage could be introduced as one car parking space could be recycled to provide 6 to 10 cycle spaces.

5.6 Action Plan Summary

This Action Plan Summary outlines a range of "hard" and "soft" measures in line with the goals of the MMP. Hard measures involve a physical approach, and soft measures involve behavioural approaches. Once implemented, these measures will facilitate the shift into a more sustainable way of travel. It can be summarised as follows:

Soft measures (behavioural):

- Introduce pedometer challenges between residents
- Introduction of walking clubs
- Introduce cycling challenges
- Make residents aware of cycle to work schemes
- Promote within the residents the introduction of working from home scheme with their employees
- Promote cycle or running clubs
- Post bus routes and timetables on common areas across the development
- Post information on costs, commuter tickets / multi-trip reductions
- Raise awareness of the well-being, environmental and cost-saving benefits of carpooling
- Provide a platform to connect residents travelling to similar routes to increase carpooling
- Encourage the use of sustainable ways of transportation.

Hard measures (infrastructural):

- Identify unsafe locations along walking/cycling routes and liaise with Local Authorities to rectify
- Safe, secure, covered bicycle parking has been provided throughout the site
- Introduce bike to rent scheme

- Reserve the 'best' parking spaces for car-sharing residents who car-pool
- Provide designated parking for e-vehicles
- Introduce car-pooling scheme amongst residents
- Develop a car parking strategy
- Provide real-time information for nearby bus stops
- Provide bicycle maintenance stands at proposed bicycle parking areas.

Appendix B provides indicative figures for target modal splits for the next five years, after the proposed Blackglen Development is concluded, and the summarised Action Plan. Modal Split Targets were determined following the census survey as discussed in **Section 4**, the actual Modal Split Targets will be determined following the first residents' survey shortly after the development is constructed, typically within the first six months.

Given the iterative nature of MMPs, this table should be revisited periodically following the completion of future travel and transport surveys issued by the residential's Mobility Manager.

6 Implementation of the Mobility Management Plan

6.1 Background

For the Mobility Management Plan to be successful, investment and resources will need to be made available to implement the proposals outlined in this report. The Mobility Management Plan will also need to be reviewed periodically to assess how the proposals are being received by residents and to determine realistic targets for the plan.

Setting realistic targets is vital to the success of the mobility management plan, as is ensuring that its proposals are embraced by the employees. It is important to set realistic targets early in the development process and that promotional drives are undertaken to ensure targets are met.

6.2 Mobility Management Plan Coordination

The main target of this Mobility Management Plan is to ensure that the traffic impacts associated with the day-to-day transportation of residents and retail units at the proposed development are minimised. Achieving this target will result in a wide range of benefits to the wider community.

For the Mobility Management Plan to be successful it is essential that a mobility management coordinator is appointed to monitor the progress of the plan on an ongoing basis. The coordinators appointed in monitoring the implementation of the Mobility Management Plan at the development shall be confirmed with the Local Authority before the proposed works are concluded.

- Mobility Management Plan Coordinator Pending
- Assistant Mobility Management Plan Coordinator Pending

The duties of the Mobility Coordinator will include:

- Conducting travel surveys at regular intervals once the development is completed and operational, which will provide detailed and up-to-date information on travel habits that can be used to develop new strategies to encourage travel by alternative modes;
- Implementation of various schemes/ plans aimed at encouraging the uptake of more sustainable means of travel;
- Acting as an information point for the proposed development;
- Communicating with public transport companies and other service providers;
- Ongoing promotion and marketing of the plan through various mediums; and
- Evaluation and adaptation of the plan in the light of experience.

It is important that the mobility management plan coordinator and assistant coordinator work closely together while promoting the plan for the proposed development. The involvement of the users at an early stage will be essential to the success of the plan. ORS recommend that

the Mobility Management Plan coordinators consult with residents to discuss the strategy for the implementation of the plan. This may help to spread the workload involved in implementing the plan and provide a platform for feedback to be presented.

6.2.1 Promoting the Mobility Management Plan

Promotion of the sustainable forms of transport discussed in the mobility management plan is required to ensure that the attitudes of the residents are impacted. It is important that the mobility management plan coordinator recognises the needs of residents and the areas where they may be willing to change their attitudes to travel. This information can be obtained by issuing questionnaires.

6.2.2 Management and Review

Management and review of the Mobility Management Plan are vital to track progress and determine realistic milestones in the implementation of the plan. It is recommended that the travel patterns of residents are reviewed on an annual basis. ORS have compiled a questionnaire which is attached in **Appendix A** of this report which will provide the mobility management plan coordinator with all the necessary information to review travel trends at the development. It is recommended that this questionnaire, or a similar online version, is issued annually to residents to monitor and track travel pattern changes.

ORS would also suggest leaflets and information booklets to be produced to make residents aware of the Mobility Management Plan and what it intends to achieve. This will allow the mobility management plan coordinator to track progress in terms of milestones and adjust the milestones that are set too high or too low. It will also ensure that changing travel patterns are taken into account to ensure that the plan continues to reflect the needs of the users.

7 Conclusion

7.1 Key Findings

Baseline information was collected from several publicly available sources to demonstrate the viability of different modes of sustainable transport within the vicinity of the site. The present-day scenario for each mode of transport was determined as follows:

- **Site Accessibility:** The site is well-positioned within an urban area with access to pedestrian, cycling, and public transport infrastructure. Blackglen Road has undergone improvements, providing safer walking and cycling conditions.
- Public Transport Connectivity: The development is within walking distance of multiple
 bus services, including Routes 44B and 114, with connectivity to major employment and
 residential areas. Additionally, the Luas Green Line is accessible within a 25-minute walk or
 a 7-minute cycle ride, offering wider regional connectivity.
- Cycling and Walking Infrastructure: Dedicated cycling lanes and pedestrian pathways along Blackglen Road enhance active travel options. The provision of secure bicycle parking within the development will further encourage cycling as a primary mode of transport.
- Car Parking and Management: The development includes a reduced provision of car parking spaces in line with sustainable transport policies. The introduction of EV charging points aligns with national and regional transport strategies.
- **Action Plan Implementation:** Measures such as providing a Welcome Travel Pack, promoting cycling and walking clubs, and encouraging carpooling will play a key role in reducing single-occupancy vehicle trips.
- Monitoring and Adaptation: A Mobility Management Plan Coordinator will oversee the ongoing implementation, ensuring that targets for reducing private vehicle usage and increasing sustainable transport adoption are met over time

7.2 Recommendations

- Mobility management is a process that is intended to be ongoing over a number of years with the end target being reduced vehicle numbers arriving and departing from the proposed development. Sustainable transportation should be embraced by the residents and not be seen as a chore. This report assists in providing alternative modes of transport and incentives to help promote the uptake in such forms of transport. It should be noted however that the actual monitoring and review of the initiatives proposed in this plan will be a far greater part of the mobility management plan itself.
- Essential to the success of the plan is the appointment of a mobility management plan coordinator for the development. The mobility management plan coordinator will be appointed prior to the completion of the proposed development. This individual will be responsible for implementing the measures discussed in the plan and should be granted sufficient time and resources to help ensure the plan is a success.
- The mobility management plan mainly focuses on the travel attitudes of residents, and it is
 essential to the success of the plan that this group is consulted from the outset. Successful
 coordination of tasks and communication could also be transferred to residents if they are
 consulted from the onset of the implementation of the plan.
- Residents will play a pivotal role in the implementation of the plan as they after all are the

- target audience to take an active role in the plan. The plan will evolve and develop with the premises, taking into account changing patterns in travel and new needs of the site users.
- In order to ensure that the plan is effective and up to date, it is encouraged that the stakeholder survey and modal split targets attached in **Appendix A** and **Appendix B** of this report is issued annually to establish changing travel patterns and targets. It should be noted that failing to meet targets should not be viewed as a failure, particularly in the first years following the implementation of the plan. This period should be used to recognise achievable targets and put forward long-term goals.
- The propensity for encouraging residents at the facility to use alternatives to singleoccupancy car travel will inevitably depend on the convenience and availability of those alternative networks and facilities. The management can play a role in influencing travel choices by implementing various initiatives to encourage even occasional use of alternative modes.
- The availability of a public transport connections between the site and the surrounds can make a great difference to modal choice and future modal shift, as can the provision of more public transport connections. While the management of the proposed site has no control over such measures, they can nevertheless educate and influence the residents to investigate various options in relation to using the existing infrastructure for part or all of their journey.

Appendix A – Resident Questionnaire

Dear Residents,

RE: MOBILITY MANAGEMENT PLAN QUESTIONNAIRE

The Local Authority has requested that we prepare a Mobility Management Plan to assess the transport situation at the residential development at Blackglen Road, Sandyford, Co. Dublin.

The first step in the Mobility Management Plan process is to ascertain the current travel patterns of the residents. In an effort to achieve this, a questionnaire has been designed to assess the methods used by the residents to travel to and from their houses.

The attached questionnaire asks a few short questions associated with how you travel to and from the residential development. This questionnaire will take approximately 5 minutes to complete.

In addition, the last question in the questionnaire provides you with the opportunity to bring your comments and observations associated with the delivery of the improvements to the development. As an important member of the development, your inputs and support are vital to the safe operation of our facilities. On this basis, your observations are welcomed and will be thoroughly considered.

Please return your completed questionnaire to me, no later than XX/XX/XXXX.

Thank you for your consideration and support.

Yours sincerely,

Mobility Management Plan Co-Ordinator

Residents Questionnaire

Section 1: Travel	Patterns
1. Are you male	
Male	
Female	
Prefer not to say	
2 How far do you	u travel from house to work/school?
Less than one 1	
1 – 1.9 km	
2 – 2.9 km	
3 – 3.9 km	
4 – 4.9 km	
5 km or more	
-	
3. How do you	usually travel from your house to work/school? (Please tick the most
appropriate, or sta	ate other)
	By private car
	By carpool/car-share
	By Bus (public)
	On foot
	By bicycle
	By taxi
.	
Other, please stat	e:
4 How do you	normally travel from work/school to your house? (Please tick the most
appropriate, or sta	
	By private car
	By carpool/car-share
	By Bus (public)
	On foot
	By bicycle
	By taxi
Other, please stat	e:
outer, produce stat	
5. Is there a bus	service available to take you to or from your house?
Yes	, , , , , , , , , , , , , , , , , , ,
No	
Don't know	

6. How far is the bus stop from your house? 0 - 0.5 km0.6 - 1 km1 - 1.9 km2 - 2.9 km3 - 3.9 km4-4.9 km5 km or more 7. How far is the bus stop from your work/school? 0 - 0.5 km0.6 - 1 km1 - 1.9 km2 - 2.9 km3 - 3.9 km4 - 4.9 km5 km or more 8. Do you own a bicycle? Yes No 9. How many cars are there at house? None 1 2 Over 3 10. If you could choose, how would you like to travel to work/school? (Please tick the most appropriate, or state other) On foot By bicycle By bus By private car By carpool/car-share By taxi

Other, please state:

11. If you do not walk or cycle to work/school, what most stops you from doing so?					
Section 2: Travelling by	Section 2: Travelling by Walking/Cycling 12. I like/would like to cycle to/from my house because:				
12. I like/would like to cy					
13. How safe is the journ Safe Average Unsafe Dangerous 14. How safe is the journ Safe Average Unsafe Dangerous	ney to house on foot?				
15. Do cars and/or buse Yes No	s cause a problem on or near your house grounds?				
16. If yes, what problem	s do they cause and where?				
17. Is bicycle storage go Yes No	ood enough at present on the residential development?				

Section 3: Travelling by Bus/Train

18. When walking to and from th	ne bus stop, how safe do you consider your route to be?
Safe	
Average	
Unsafe	
Dangerous	
19. Do you have a bus or train p	pass?
Yes	
No	
20. Is passenger' behaviour a pi	roblem on your bus?
Yes	
No	
21. Does your bus sometimes a	r <u>rive late</u> or leave too early?
Yes	
No	
22. Is overcrowding a problem?	
Yes	
No	
Section 4: Travelling by Car	
23. How many fellow residents u	usually travel with you?
None	
1	
2 3	
4	
bring you to your work?	work/school, is the journey only being made just to
Yes	
No	

	stion was NO (e.g., your driver continues driving to go to work) onger is your driver's journey because they have taken you to
your work/school?	
No extra time	
Less than 5 minutes	
5 – 10 minutes	
More than 10 minutes	
	ot in the driver's shortest route to work, could you be dropped
	complete your journey by bus or on foot?
Yes – By bus	
No – By foot	
No	
27. If yes, how far away fror	n your work/school is the drop off point?
Less than one 1 km	
1 – 1.9 km	
2 – 2.9 km	
3 – 3.9 km	
4 – 4.9 km	
5 km or more	
28. If no, please explain why	y this option would not work for you and/or your driver.
Section 5: Hazardous Journ	ney
29. Have you ever been invo	olved in a road accident on your journey to or your house?
No ————————————————————————————————————	
30. If YES, how were you tra	avelling?
By foot	
By bicycle	
By bus	
Given a lift	
31. Please describe what ha	uppened.

32. Have you ever been inve	olved in a near-miss on your journey to or from your house?
Yes	
No	
33. If YES, how were you tra	velling?
By foot	
By bicycle	
By bus	
Given a lift	
34. Please describe what ha	ppened.
house?	Illied, threatened or scared on your journey to or from you
Yes	
No	
36. If YES, how were you tra By foot By bicycle By bus Given a lift	velling?
37. Please describe what ha	ppened.
Section 6: Health and Fitnes	is s
38. How often do play sport	or exercise?
Most days	
Twice a week	
Once a week	
Less than once a week	
Never	

39. How long does each period of exercise last on average?	
15 mins or less	
Around half an hour	
Around 1 hour or more	
40. Are you satisfied with your current level of fitness?	
I would like to feel fitter	
I feel fit enough	
I feel unfit	
41. List three activities you would like to do which help you get fitter.	
1.	
2.	
3.	
40 If you would be a second in the least 7 days 0 (and in clouding or	
42. If you cycle, how many journeys have you made in the last 7 days? (not including journeys)	work
Once	
Twice	
Three times or more	
None ———	
43. Where did you go?	
44. If you have any other comments or suggestions about travel to and from the reside	ential
development, please share them here:	
Thank you for taking the time to complete this questionnaire, your participatic appreciated.	n is

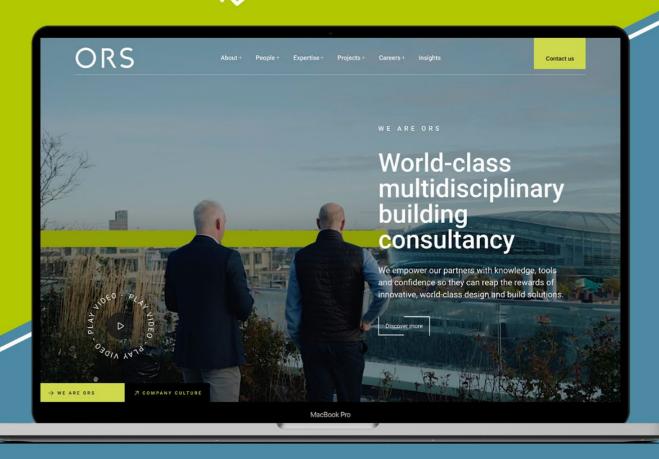
Appendix B – Action Plan Summary

Action Plan Summary											
Travel Distance	2022 Census Modal Split (16%	Target Modal Split		Measures	Key Incentive Mechanism	Comments					
	Distance	did not stated or work from home)	Preliminary	1st Review	2nd Review	- INICASUICS	Rey incentive mechanism	Comments			
Walking		12%	18%			Soft	Introduce pedometer challenges				
	2-3 km						Introduction of walking clubs				
										Hard	Identify unsafe locations along the route and liaise with Local Authority to rectify
										Introduce cycle challenges	
Cycling 5-1						Soft	Provide road safety and bicycle maintenance seminars				
	5-10km	4%	9%				Promote the Cycle to Work Scheme				
	3-TUNIII	470	976		Hard		Provide safe, secure, covered bicycle parking				
						Hard	Provide bicycle repair stands at bicyle parking areas				
							Identify unsafe locations along the route and liaise with Local Authority to rectify				
Public Transport	10-50km	21%	21% 30%	Soft		Soft	Post bus routes and timetables				
					John	Post information on costs, commuter tickets/multi-trip reductions					
Car Sharing	10-100km	16%	18%	18%		Soft	Raise awareness of well-being, environmental and cost-saving benefits				
Car Sharing						3011	Provide a platform to connect residents working on similar routes				
Private Vehicle	10-100km	31%	25%			Soft	Raise awareness of well-being, environmental and cost-saving benefits of alternatives				

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